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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,640	03/19/2004	Matthias Wagner	AEG-007	7762

23701 7590 01/03/2007
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EXAMINER	
HUGHES, JAMES P	
ART UNIT	PAPER NUMBER
2883	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/804,640	WAGNER ET AL.	
	Examiner	Art Unit	
	James P. Hughes	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24 and 26-40* is/are pending in the application.

4a) Of the above claim(s) *1-22,28-30 and 36-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23,24,26,27 and 31-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 36-40 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 36-40 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 23-27, drawn to an , classified in class 385, subclass 27.

II. Claims 36-40, drawn to a method of optical switching, classified in class 385, subclass 16.

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the method could be performed by a apparatus which was not capable of independently tuning the two filters.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the

inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Claim Objections

2. New claims 31-35 are objected to because it is unclear if they contain new matter. It is unclear where in the specification their support is found. Appropriate action is required.

3. New claim 31 is objected to because it is unclear which statutory class of invention (apparatus or method) the claim is drawn to. Claim 31 recites a method step—"the switchable optical filter switches between one of..."—while its parent claim 23 is an apparatus claim. Appropriate action is required.

Response to Arguments

Applicant's arguments filed on October 3, 2006 have been fully considered but they are not persuasive. Applicant argues that that claimed spacer is not taught or suggested by Seeser because "claim 23 includes a static non-thermo-optic spacer that is much thicker than ...." (Page 11) This argument is not persuasive because these limitations are not found in claim 23. Further, applicant argues that Seeser does not read on the instant invention because the invention of Seeser has different intended uses. (e.g. Pages 11 and 12) Respectfully, these arguments are not persuasive because they do not show how the instant claimed invention is not an obvious variant of the structure of Seeser.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 23, 24, 26, 27, 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seeser et al. (2002/0191268). Seeser teaches a switchable optical filter comprising: a plurality of Fabry-Perot cavities (e.g. 102, 104, 106, 108, 110 and 326) with a passband that may shift as a function of an applied temperature (e.g. control variable) via electrodes (e.g. 316 and 318). (See e.g. paragraphs 50-59, 72-82, and Figs. 1 and 6a) Seeser teaches that each of the cavity regions could be filled with a solid, liquid, or gas such as air. During operation heat may be applied to create a transmissive state rather than the default reflective state.

The "spacer" of claim 23 could be considered numerous components in the invention of Seeser which would isolate the first and second filter portions. For example, the regions which

Seeser refers to as "spacers" (210,212,326 ect.) could each be considered a spacer as recited in claim 23. Additionally, the multiple layers represented in Fig. 6A by diagonal lines, could also be considered spacers as recited in claim 23.

While Seeser teaches a temperature controlled bandpass region (e.g. the area represented by 316, 318, 322, 324, 326 of Fig. 6A), two of such regions are not explicitly taught. However, it would have been obvious to on of ordinary skill in the art at the time of the invention to incorporate two of such regions in the device of Seeser to allow for control of more than one wavelength (of the same if desired) of a multi-wavelength signal (channel) passing through the filter. One would have been motivated to control the filtering (attenuation) of more than one wavelength (channel) because as taught by Seeser in the background of the invention (see e.g. paragraphs 9-13) optical channels may be separated from a common DWDM signal using filters and as different channels may have different signal levels it is often desirable to adjust the amplitude of one channel with respect to another.

It would also have been obvious to one of ordinary skill in the art at the time of the invention to thermally separate the two filer portions to allow for more precise thermal control over a give section.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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